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Committee on Appropriations

RESEARCH, EDUCATION, AND ECONOMICS

Statement of

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For the House Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies

Mr. Chairman, members of the Committee, it is my pleasure to appear before you to discuss the Fiscal Year (FY) 2005 budgets for the Research, Education, and Economics (REE) mission area agencies of the USDA. I have with me today Deputy Under Secretary Brown, Acting Administrator of the Agricultural Research Service (ARS) Knipling, Administrator of the Cooperative State Research, Education, and Extension Service (CSREES) Hefferan, Administrator of the Economic Research Service (ERS) Offutt, Administrator of the National Agricultural Statistics Service (NASS) Bosecker and Office of Budget and Program Analysis Director Dewhurst. Each Administrator has submitted written testimony for the record.

First of all, I appreciate the support received from Congress in our appropriations for FY 2004. With the continuation of a tight domestic, non-homeland security budget, the President's FY 2005 budget proposes $2.403 billion for the four REE agencies, about $66 million less than the level appropriated in fiscal year 2004. However, the agency budgets include important and valuable increases in Food and Agriculture Defense, Bovine Spongiform Encephalopathy or BSE related activities and Better Nutrition for a Healthy US, all strategic target areas within the entire Department.

The budget that we are discussing today obviously relates to requested funds for the four agencies in the Research, Education, and Economics Mission area. In reality, the REE budget is a reflection of the Department budget. An important role for the REE agencies is to provide the science–based information and technology needed by the Department's regulatory and action agencies. To meet this mission, the REE agencies' programs are very broad and numerous. REE is the only mission area that contributes to all five goals and 17 objectives of the USDA strategic plan.

We take our role as the science provider for policy and regulatory decisions very seriously and are proactive in making sure our research agendas are responsive to the needs of fellow agencies. For example, ARS has an annual meeting with Food Safety and Inspection Service (FSIS) to jointly identify research needs and set priorities, and an ARS scientist acts as a liaison for the transfer of technology to FSIS. ARS and NASS are cooperating with the Natural Resources Conservation Service in an ambitious program to evaluate the effect of the conservation programs in the 2002 Farm Bill. CSREES is working closely with the Animal and Plant Health Inspection Service (APHIS) in developing a national diagnostic laboratory network. ERS routinely provides economic analyses for the Foreign Agricultural Service (FAS) and the Chief Economist, among others, and plays a major role in the analysis of our nutrition assistance programs and policies. The Risk Management Agency (RMA) and the Farm Service Agency (FSA) use NASS statistics heavily. The net effect is that the REE agency budgets not only influence the size and shape of our research, education, and statistical programs, but also our capacity to serve the rest of the Department. The public is calling on the government to provide the scientific evidence in decision-making and science-based solutions for specific production,

nutrition, security, and environmental challenges. Secretary Veneman and other USDA officials repeatedly used REE-generated information to guide USDA policy decisions.

It is no news to this subcommittee that the success of the American food and agricultural system over many decades has been built on agricultural research and technology. Numerous studies have found that the return on investment in agriculture research is high. Whether measured in productivity, competitive strength in global markets, use of environmentally sustainable production practices, or new science-based food safety technology, research and development underpins essentially all advances in the food and agriculture system. High quality, relevant research cannot guarantee a successful, competitive food and agricultural business. Natural events, markets conditions, and resistance to the adoption of new technologies can be barriers to the translation of new knowledge and technology into sector gains. At the same time, in the absence of such research, the food and agricultural sector runs the risk of losing its competitive edge in global markets.

As scientific opportunities continue to expand and the agricultural and food system becomes even more scientifically and technologically dependent, the reliance on research to stay competitive is likely to be even greater. The advent of molecular biology and resulting remarkable manner in which plants and animals can be modified to enhance their nutritional value, resistance to disease, or ability to grow in adverse conditions hold amazing possibilities in the near future. In fact, we are already benefiting from such advances with Bt corn and cotton. But advances like these do not happen overnight. Studies show there is a lag of as much as 15 years for the payoffs from research to reach the marketplace. Wonderful advances are coming out of the research and development pipelines today, from programs in universities and colleges

across the country and within USDA and other Federal laboratories. Often they are the product of investments started several, if not many, years ago. We must keep up our investment in agriculture now, so our children and grandchildren will benefit years from now. We need to heed this fact as we craft research budgets for this and future years.

The REE agency FY 2005 budgets include such long-term investments, as well as others that will yield a return in the immediate or near future. Before turning to the specific agency budgets, I would like to highlight three programs slated to received significant increases: Food and Agriculture Defense, BSE related activities, and Better Nutrition for a Healthy US.

Food and Agriculture Defense Initiative: The FY 2005 budget provides a funding increase of $201 million for ARS and $27 million for CSREES to participate in this interagency Food and Agriculture Defense Initiative, focused on strengthening the Federal Government's capacity to identify and characterize bioterriorist attacks. These increases represent investments that would result in strengthened homeland security in the near future.

Under the Food Defense component of the initiative, ARS will conduct research to develop tests that rapidly detect and accurately identify pathogens, toxins and metal contaminants in foods. The actual tests should be available within a short time.

The Animal Defense component includes $178 million for ARS to complete the modernization of the National Centers for Animal Health in Ames, Iowa by October 2007. This consolidated ARS/APHIS facility, including BSL-2, BSL-3, and BSL-3 Ag space, will house and support an integrated, multidisciplinary scientific capability, combining animal disease research with the development of diagnostic tools and vaccines. It will produce benefits immediately by replacing inefficient and obsolete facilities. Other agricultural defense funds for

ARS would support research on controlling exotic and emerging diseases and a new National Plant Disease Recovery System that would develop the capacity to help the agriculture sector recover from catastrophic outbreaks of plant diseases, whether naturally occurring or intentionally introduced.

Working cooperatively with APHIS, the budget provides CSREES $30 million, including an increase of $22 million, to maintain and enhance the recently established, unified Federal-State network of public agricultural institutions that serves as a backup to APHIS diagnostic laboratories. The initiative also includes $5 million in higher education for a new competitive program that would promote the training of food system defense professionals who will be critical national assets in the years to come.

BSE Related Activities: As you know, USDA is responding aggressively to the recent detection of BSE in a cow in Washington State. REE agencies and the knowledge and technology resulting from past research were important to the Department in its actions to deal with the positive BSE test results. ARS supported APHIS in running several back-up tests to confirm the diagnosis, to validate that the tissue sample was bovine, and to establish the parentage of the animal. Looking forward, the budget provides ARS an increase of $1 million to discover genetic resistance to BSE that could be bred into cattle.

Better Nutrition for a Healthier US: One need only read almost any newspaper in almost any week to be reminded of the epidemic of obesity in this nation and increasingly around the industrialized world. The causes are many and complex, such as a reduction in physical exercise as part of our work, greater reliance on the convenience of fast food restaurants, and consumption of more calories. The consequences of obesity and overweight are

well documented in the higher incidence of weight- associated diseases, greater health care costs, and billions of dollars in lost productivity. What is less clear is how to help individuals and families gain and maintain healthy weights with the right balance of nutritious diets and exercise. As a nation, we spend billions of dollars on diets with little sustained success.

USDA and its research agencies have a valuable role in addressing the obesity conundrum. As part of the Department initiative, Better Nutrition for a Healthier US, and the White House "Healthier US" Initiative, the FY 2005 budget proposes increases for ARS, CSREES, and ERS to address this major national health problem and associated issues. The increases will focus principally on gaining a better understanding of the factors influencing food consumption patterns and developing effective and culturally appropriate diet strategies and interventions.

An ARS increase of $5 million will support research on the benefits of self-selected healthy diets in achieving healthy weight and preventing obesity as input to developing and evaluating culturally relevant behavioral strategies to promote healthy diets. The CSREES budget provides an increase of $7 million in the NRI to gain a better understanding of the factors influencing obesity and their interaction, including how they vary by gender, race, age, ethnicity and socioeconomic characteristics. Issues relating to the nutrition value of functional foods will also be addressed. Funding for the Expanded Food and Nutrition Education Program is also provided in the CSREES budget to increase the number of low-income individuals participating in this program, one that has a very impressive track record in achieving sustained, positive changes in behavior related to food and diets.

The President's budget proposes $8.7 million for ERS to establish a new consumer

information system designed to gain a better understanding of our increasingly consumer-driven food and agricultural system. An important component of the new system will be a survey on individuals' knowledge and attitudes about healthy diets and how those factors are associated with the quality of their diet and their health status. In collaboration with the Department of Health and Human Services and ARS, the survey will be conducted as part of the National Health and Nutrition Examination Survey or NHANES.

Other survey data and analysis in the proposed information system will be used to identify, track and gain a better understanding of changes in food supply and consumption patterns, valuable input for making policy decisions in the food, consumer and health arenas. While the Department has a robust data system on the production agricultural system, far less is available for understanding production and linkages between the farm gate and the consumer. The data and the analysis will be valuable to production agriculture in its adjustment to the growing emphasis on health and nutrition in the consumer-driven food and agricultural system of today.

Before turning to the agency budgets, I would like to express my appreciation for your past support of genomics research. This research continues to be critical to our overall research portfolio, providing the base knowledge on which much of our problem solving research is built. The future of agriculture is in genomics and related fields such as proteomics and functional genomics. Sequencing the genome of important agricultural plants and animals and learning about the functions of different genes hold the promise of a whole new generation of agricultural products that are nutritionally enhanced, disease resistant, and less dependent on fertilizers and herbicides. Genetic research is also central to the development of rapid diagnostic tests, such as

the one used by APHIS to identify avian influenza and exotic Newcastle disease. Genomics is a prime example of research that takes years to carry out and years to realize many of the benefits, but we are well on the way.

USDA has once again been very successful in leveraging our genomics research funds with funds from other science institutions and governments both in the U.S. and abroad. Funding for the sequencing of the bovine genome was secured, with USDA providing $11 million of the total $53 million. The actual sequencing was begun at Baylor University last December. USDA also continues to work with the National Science Foundation on the National Plant Genome Initiative and the Microbe Project.

Both the ARS and CSREES proposed budgets include increases in their genomics programs. The President's FY 2005 budget provides a total of $21 million for the two agencies, $12 million in ARS and $9 million in the NRI of CSREES.

REE Agency FY 2005 Budgets

I would now like to turn briefly to the budgets of the four REE agencies.

Agricultural Research Service: The Agricultural Research Service FY 2005 budget requests approximately $1.2 billion, or slightly more than in FY 2004. Within this total $988 million is proposed for research and information programs, approximately $100 million less than in FY 2004. A total of $178 million for buildings and facilities is devoted entirely to the modernization of the ARS/APHIS facilities at Ames.

The ARS budget proposes increases for high priority program initiatives of national and regional importance. In order to accommodate these high priority increases, including homeland security, the budget proposes redirection or termination of approximately $169 million in current

programs. As the principal intramural biological and physical science research agency in the Department, ARS continues to play a critical role for the Department and the larger agricultural community in conducting both basic and mission-oriented research. Results from ARS' basic research provide the foundation for applied research carried out by ARS, academic institutions and private industry. ARS' applied research and technology development address the research needs of other USDA agencies, as well as those of the broader producer and processor community.

In addition to the increases previously described, the ARS budget proposes increases for climate change, invasive species research, and for the Abraham Lincoln National Agricultural Library (NAL). Independent of cause, agriculture is vulnerable to changes in climate, such as rising temperatures, changing amounts of precipitation, increased variability in weather, and increases in the frequency and intensity of extreme weather events. While agriculture is vulnerable to these environmental changes, it also offers significant opportunities to mitigate the increase in greenhouse gases in the atmosphere. An increase of $5.2 million in the President's budget for climate change will support research providing information on balancing carbon storage, emissions, and agricultural productivity in different agricultural systems across the Nation.

Invasive species, including weeds, insects and pathogens, are responsible for losses in agricultural productivity, environmental quality and biodiversity. An ARS increase of $5 million will support research to develop new target specific bio-intensive approaches to control invasive weeds, such as purple loosestrife, and insects, such as the Asian longhorn beetle. The increase will also support research for developing highly specific, potent, and inexpensive synthetic

agents for controlling the red invasive fire ant and the southern cattle tick.

In the age of digital information, the NAL is providing national leadership through the development of the National Digital Library of Agriculture that will deliver pertinent agriculture-related information and knowledge to the American agricultural community. The requested increase of $2 million will enhance NAL's ability to offer integrated services for accessing, managing, and preserving agricultural information through the application of advanced network technologies.

Advances in information technology, including the ability to share information instantaneously, are enabling agencies such as ARS to gain significant efficiencies and collaborative power in conducting research programs and projects. However, these advances have also made ARS more vulnerable to cyber security attacks. The safety of sensitive research information from unauthorized intruders is critical to the agency's research program. The FY 2005 budget proposes $1.5 million to strengthen ARS' cyber security program.

Cooperative State Research, Education, and Extension Service: The President's FY 2005 budget provides just over $1 billion for the Cooperative State Research, Education, and Extension Service. Compared to FY 2004, the budget includes an increase of $62 million in on-going programs and the elimination of $166 million in Congressional add-ons and project terminations. The Administration's request places a strong emphasis on increases in the REE mission area for Food and Agriculture Defense and peer-reviewed competitive grants. In providing critical funding for the research, education, and extension programs of the Land Grant system and other universities and organizations across the country, CSREES continues to play a central role in the generation of new knowledge and technology and the transfer of that

knowledge and technology to stakeholders.

As described above, the budget provides an increase of $16 million for genomics and nutrition research under the NRI, CSREES' flagship competitive research program. The NRI continues to be a very valuable avenue for supporting cutting-edge research conducted by the finest scientists across the country. In addition to the increases in the NRI and the higher education program under the Food and Agriculture Defense Initiative, the budget calls for an increase of $1.6 million in the CSREES Graduate Fellowship Grant Program. Despite recent gains in support of minority-serving institutions and programs encouraging diversity in higher education and the work force, the nation faces chronic challenges in promoting human capital development that enables all citizens to realize their educational potential and promise of contributing to the food and agricultural system. The proposed increase will allow CSREES to further expand the number of fellowships offered at the Master of Science level essential for recruiting minority graduate students.

Economic Research Service: The Economic Research Service is provided $80 million in the President's FY 2005 budget. As the Department's principal intramural economics and social science research agency, ERS conducts research and analysis on the efficiency, efficacy, and equity aspects of issues related to agriculture, food safety and human nutrition, the environment, and rural development.

The Consumer Data Information System described above and supported with an increase of $8.7 million will provide the Department, for the first time ever, the data and analytical capacity to understand the quickly evolving consumer driven food and agricultural system. Knowledge about the dynamics of the system and its relationship to consumer behavior is critical

for producers and processors to continue to compete effectively in domestic and global markets and for policymakers to identify and develop strategies addressing nutrition and obesity issues at different levels of the food system.

National Agricultural Statistics Service: The National Agricultural Statistics Service budget requests $138 million, an increase of $10 million over FY 2004. NASS' comprehensive, reliable, and timely data are critical for policy decisions and stable agricultural markets, and to ensure a level playing field for all users of agricultural statistics. The budget includes a decrease of $2.6 million for the Census of Agriculture, due to the cyclical basis of the Census. Preliminary results from the census were released early last month. Final results will be released in June.

The budget provides $7 million for continuing a multiyear initiative begun in FY 2004 to restore and modernize NASS' core estimates program to meet data users' needs with an improved level of precision. A second increase of $2.5 million will incrementally improve statistically defensible survey precision for small area statistics that are widely used by USDA agencies, such as RMA for indemnity calculations. An additional $.8 million increase will allow NASS to support Presidential, Departmental, and agency eGovernment initiatives.

Summary

In summary, I want to reiterate that, given an overall very tight FY 2005 budget, the REE budget reflects a continuing commitment to investment in agricultural research, economics, statistics, education, and extension. It also reflects an understanding that research and education are critical for solving both the problems agriculture and its producers are facing today, as well

as emerging problems and opportunities of the 21st century. With continued strong investment, we will be ready to meet future problems and take advantage of new opportunities presented by cutting-edge science. This concludes my statement. Thank you for your attention.